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## A NEW GENUS AND SOME NEW SPECIES OF HESPERIIDAE FROM PERU, IN THE BASSLER COLLECTION

(Lepidoptera: Rhopalocera)

By E. L. BELL

Among the large amount of material in the Bassler collection are 418 specimens of HesperIIDae, a few of which were collected in Ecuador but the great majority of them in Peru. These comprise three subfamilies and eighty-four genera represented by one hundred and seventy-nine species, one genus and nine species being described as new in this paper.

The subfamilies, genera and species are divided as follows.

### **Pyrrhopyginae**

Five genera, twenty-two species, forty specimens. One species described as new.

### **Pyrginae**

Forty-seven genera, one hundred and eight species, two hundred and eighty-four specimens. One genus and five species described as new.

### **Hesperiinae**

Thirty-two genera, forty-nine species, ninety-four specimens. Three species described as new.

In none of the species are there extensive series, many of them being represented by but one or two individuals. In addition to the newly described species there are seven previously described species which are new to The American Museum of Natural History collection, one in the Pyrrhopyginae, three each in the other two subfamilies and in many instances the other material is a very welcome addition to inadequate series in the collection.

The localities from which Dr. Bassler's hesperid material came are listed below, the Peruvian localities being grouped ac-

cording to the physical characters of the several localities.

ECUADOR.—Upper Rio Napo Basin. According to the map before the writer the Rio Napo is a tributary of the Amazon, flowing along the boundary between Ecuador and Colombia and through the northern part of Peru.

PERU (HABITAT A).—Localities on Upper Amazon Plain still some distance from Front Range (First Range of the Andes). Topography flat to gentle rolling. Flat areas along some of the rivers subject to inundation. Heavily forested, the only open spaces are river beaches and artificial clearings. Elevation: 350 to 750 feet. Annual rainfall: 100 inches.

Iquitos. Middle and Lower Rio Marañon. Rio Morona. Middle and Lower Rio Ucayali. Lower Rio Tapichi. Rio Uribamba.

PERU (HABITAT B).—Localities on upper edge of Amazon Plain along the base of the Front Range, or in gorges or valleys that extend into this Range. Collections from these localities have been made in part in the low hill country immediately in front of the Range and on the floors of the penetrating valleys and gorges and in part on the slope above them. The crest of the Range varies in elevation between 3500 and 7500 feet but collecting at these localities may be said to have been confined to the altitude zone between 500 and 1500 feet. Region is heavily forested. Annual rainfall exceeds 100 inches and the amount of sunshine received is less than that of Habitat A.

Achinamiza. Rio Huallaga (in part). Upper Rio Tapichi.

PERU (HABITAT C).—Localities behind

the Front Range in valleys usually more or less parallel to it in which the topography is that of flat, gently rolling or low hill country. Elevations range usually between 650 and 3000 feet. Annual rainfall is less than 100 inches, as a rule, and annual sunshine accordingly more than in Habitats A and B. The lower range of elevations occurs in the Santiago Valley, and the higher in the Moyobamba Basin of the Mayo drainage.

Rio Huallaga (in part). Upper Rio Huallaga. Upper Rio Marañon. Moyobamba Region. Rio Santiago. Tarapoto Region.

PERU (NORTHEAST PERU).—No definite localities or habitat data.

All of the types and paratypes of the following new species are in the type collection of The American Museum of Natural History and the rest of the material in the general collection.

#### *Pyrrhopyge bassleri*, new species

MALE.—Upper side of both wings shining blackish brown. Primaries with an oblique, transverse subbasal red stripe. Three white hyaline spots forming a broad, oblique discal band, the first spot across the cell, the second in interspace 2, the third in interspace 1 terminating in a point on vein 1. Fringes of the type white from the anal angle to vein 2, then interspersed with black to vein 5, then black to the apex; in the paratype from Putumayo River they are entirely black except for a few white scales at the anal angle; in the paratype from Rio Santiago they are entirely black.

Secondaries with a red basal area. In the type the anal angle area including the fringes is red; in the Putumayo River paratype there is no red on the wing itself and the fringes are black and white with a few red hairs; in the Rio Santiago paratype there is no red on the wing and the fringes are red with a few black hairs. The outer margin of the wing is produced into a tooth on vein 2. The fringes above the anal angle are white to vein 6 or 7 and above there black.

Under side of both wings same color as above except the red basal area is absent. Primaries with two narrow white stripes above the cell spot of the discal band.

Secondaries with the red anal angle area as on the upper side, in the Putumayo River and Rio Santiago paratypes a few red scales extend on the wing itself.

Top of head black with white spots; collar black with a white stripe; shoulder covers red; tegulae red; thorax and abdomen blackish, the latter narrowly ringed with white; anal tuft

brown with some central white hairs. Palpi beneath and pectus white. Thorax dark brownish on the sides, white in the center; legs dark brownish; abdomen blackish, edged with white. Antennae black on both sides.

EXPANSE.—39 mm.

TYPE MATERIAL.—Holotype male, Achinamiza; one male paratype, Rio Santiago; one male paratype, Putumayo River.

This handsome species is named for Dr. Harvey Bassler.

This species most closely resembles *sanies* Druce, differing in having the red tegulae and the red basal area of both wings.

The form of the male genitalia is the same as that of *agenoria* Hewitson, which differs from *bassleri* in having blackish brown tegulae, palpi beneath and pectus and lacks the red basal area of the upper side of the wings, and has no hyaline spots on the primaries.

The paratype from Putumayo River was not contained in the Bassler material but came from the miscellaneous Museum material.

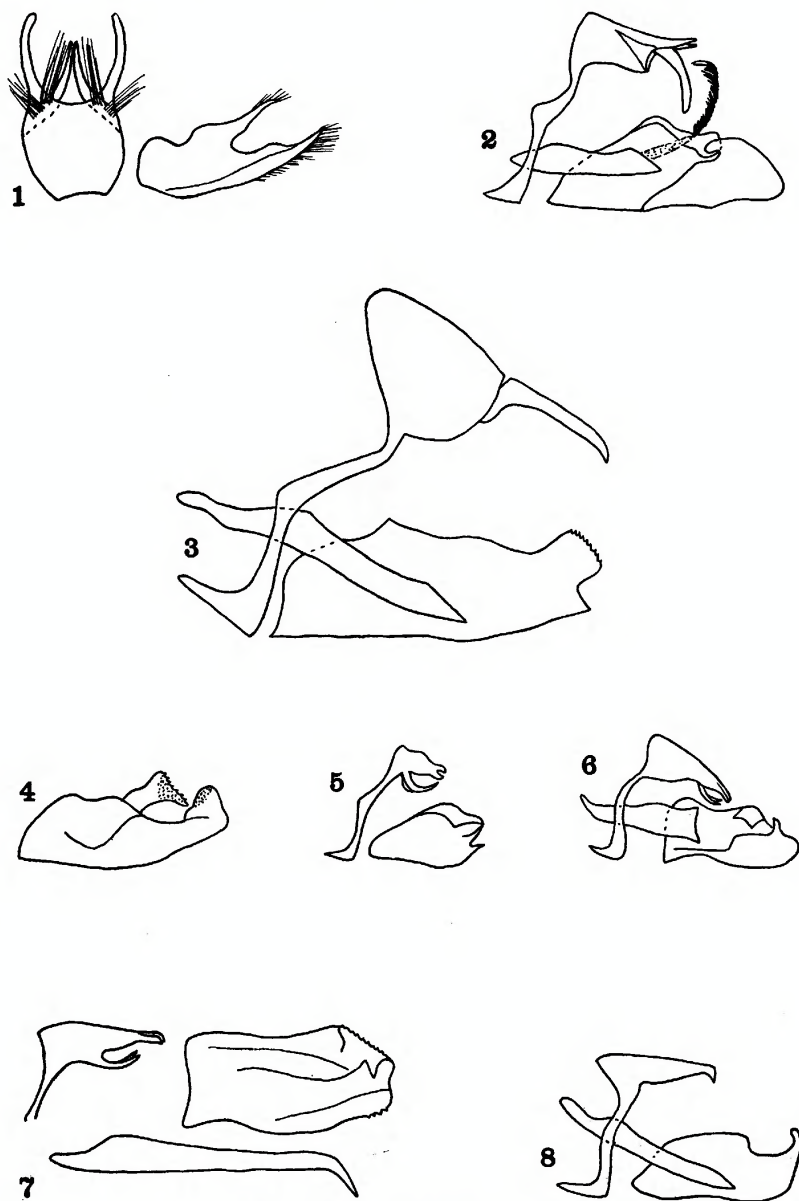
#### *Discophellus tarquinius*, new species

Figure 3

MALE.—Upper side of both wings red fulvous. Primaries with the outer marginal third a little darkened. Three small, hazy, dark subapical spots in interspaces 6, 7 and 8; a lunate blackish spot in the cell near the end; two superimposed black dots in interspace 1 in the basal third; two smaller, oblique, hazy dots in the outer third of the same interspace; a narrow, hazy, transverse dark spot in interspace 2; a still smaller one in interspace 3, the last four mentioned bordering the darkened border area; the costal margin is black from a little before to the apex. Fringes white, narrowly crossed by blackish at the end of the veins, base of the fringes dark.

Secondaries with the costal area above the cell blackish brown; a black spot in the end of the cell; a discal band of four or five minute blackish dots of which only the two between veins 2 and 4 are well defined. Fringes as on the primaries.

Beneath both wings dark fulvous brown, the secondaries a little darker than the primaries. Primaries a little paler on the inner margin. Secondaries paler at the base of the cell and in the abdominal fold. A white centered blackish spot in the end of the cell and a hazy dark spot just below it; two hazy dark spots in interspace 7, one near the base and one near the center; a discal band of small dark spots with white centers extending from below vein 7 to the abdominal



Figs. 1 to 8. Male genitalia.

fold, this band is sharply broken inward above vein 4.

Head, palpi and body, above and beneath fulvous. Antennae fulvous and black.

EXPANSE.—46 mm.

TYPE MATERIAL.—Holotype male, Middle Ucayali River.

This species differs from *porcius* Felder in the smaller size; in lacking the hyaline cell spot of both wings; on the upper side

in the outer border of the primaries being not so much darkened and not so definitely inwardly bordered by prominent dark spots; in the discal band of the secondaries being much reduced; on the under side in the much darker ground color of the wings. From *porsena* Bell it differs in the smaller size. On the upper side in the deeper red fulvous color, the less prominent

black spots bordering the outer marginal darkened area; in the more prominent black cell spot; on the secondaries in the fewer spots of the discal band. On the under side in the much darker color; in the discal band of the secondaries being broken inward above vein 4. In the fringes of both wings being white and crossed by dark scales at the end of the veins. *Tarquinius* differs from both *porcius* and *porsena* in the termination of the claspers of the male genitalia.

#### BASSLERODEA, NEW GENUS

Primaries with costal margin curved, outer margin rounded, apex bluntly pointed, cell two-thirds as long as costal margin. On the under side of these wings there is a large basal area of dense blackish brown hair scales arising on vein 2 and extending outward to nearly as far as the middle of the cell, and upward entirely across the cell toward the base, the lower edge of this area is straight along vein 2, the upper edge is rounded; below vein 2 to the center of the interspace is a second area of long, dark brownish hairs which extend upward and cover the first area mentioned, in the center extending beyond it to a little above the cell. Below these hair tufts and beyond them in the cell, the basal half of the disc and along the inner margin is a glabrous area.

Secondaries somewhat triangular, extending beyond the tip of the abdomen. The costal margin from just before the center curves upward into a large basal lobe, the apex approximately 3 mm. above vein 8, this lobe and below it for half the interspace is glabrous. On the under side the top of the lobe is folded somewhat flap-like and from the top a thin tuft of long brownish hairs extends upward.

The antennae are about half the length of the costal margin, the club is long and gradually thickened. The apiculus is broken on the only antenna left, so the length cannot be determined.

The third joint of the palpi is short, conical and porrect. The hind tibiae have two pairs of spurs.

GENOTYPE.—*Basslerodea mida*, new species.

This genus is named for Dr. Harvey Bassler.

The probable position of the genus is near *Oechydrus* Watson, from which it differs in lacking the hair tuft in the abdominal fold and in having the secondary sexual characters mentioned above and in the apex of the primaries being more pointed.

#### *Basslerodea mida*, new species

Figure 8

MALE.—Upper side of both wings chestnut-brown. Primaries with a short, oblique discal band of four white hyaline spots, the first large, across the cell a little before the apex, irregularly triangular, the second, triangular, smaller, filling the base of interspace 3, the third, much the larger, in interspace 2, subquadrate, the fourth, very minute, in interspace 1 lying close against vein 2 just beyond the center of the large spot above it. Vein 3 is also white where it passes between the second and third spots. Fringes of both wings concolorous.

Secondaries immaculate.

Beneath both wings as above and with the secondary sexual characters described in the genus.

Top of head, palpi, collar and shoulder covers brilliant blue-green; tegulae brown, inwardly edged with blue-green; thorax above brown with long blue-green hairs at the base; abdomen brown. Palpi beneath blue-green at the base, above brown with a few yellowish hairs; pectus blue-green; thorax beneath blue-green; abdomen narrowly whitish on each side with a broad brown central stripe. Antennae blackish on both sides, the club beneath brownish, the apiculus reddish.

EXPANSE.—31 mm.

TYPE MATERIAL.—Holotype male and one male paratype, Iquitos.

*Mida* does not closely resemble any other American hesperid known to the writer.

#### *Celaenorrhinus disjunctus*, new species

Figure 1

MALE.—Upper side of both wings dark brown. Primaries with an oblique discal band of six spots, the first near the middle of the costal margin but touching neither it nor the cell, the second much larger, extending entirely across the cell, slightly excavated on the inner margin and with a small indentation in the top of the outer edge, the third of nearly equal size in interspace 2, slightly excavated on the inner edge, the upper part of the outer edge oblique and the lower part vertical, the fourth a small spot near the base of interspace 3, the fifth and sixth are two small spots in an oblique line inward in interspace 1. A minute dot in interspace 1 just below vein 2 near its rise. Two small, roundish spots, one each in interspaces 4 and 5, well toward the outer border of the wing. Three subapical spots, the upper two in interspaces 7 and 8, roundish, close together, in a slightly oblique line, the lower spot in interspace 6, larger, roundish, and removed outwardly from the spot above it to about midway between it and the spot in interspace 5. All of these spots are white hyaline. Loose accumulations of yellowish scales form a hazy submarginal band of spots between the veins, extending from be-



fore the apex to near the anal angle, where in interspace 1 there are two somewhat better defined yellowish spots. Fringes a little paler than the wings, especially near the anal angle.

Secondaries with olive-brown hairs in the basal area, a yellowish spot in the end of the cell and another smaller, hazy one in the upper part toward the base; a curved, outer band of nine yellowish spots, all of them small and hazy except the ninth one nearly above the small inner cell spot, this one, though small, is the brightest one; a hazy indication of a small spot near the abdominal fold below the spot in the end of the cell. Above the anal angle the abdominal fold has yellowish scales. Fringes darker at the base, pale at the tips and crossed by dark scales at the end of some of the veins.

Under side of both wings but little paler than above. Primaries with inner margin narrowly paler; the hyaline spots repeated; the submarginal band repeated, the four lower spots lunate, those in interspace 1 bright yellow; and in this interspace the margin of the wing is bright yellow, extending to the base of the fringes and this color is continued in a fine marginal line along the inner margin of the wing. Basal area above the cell with yellowish scales.

Secondaries overscaled with yellowish, less heavily in the outer angle area. Spots of the upper side repeated more yellow in color, the spots of the curved band are small and not well defined except the ninth spot which is well defined and bright; the cell end spot is larger and both it and the inner cell spot are bright; the spot of the upper side near the abdominal fold is here represented by two, small bright yellow spots. Fringes paler and more plainly checkered.

Top of head, collar, shoulder covers and tegulae brown with pronounced green reflections. Top of palpi blackish brown with some yellow hairs. Thorax above brown with green reflections, abdomen above brown. Beneath palpi and pectus yellow. Thorax and abdomen yellowish. Antennae above black ringed with whitish toward the base of the club; beneath spotted with whitish, the apiculus whitish.

EXPANSE.—40 mm.

TYPE MATERIAL.—Holotype male, Rio Morona.

This species is a little larger than the similar *shema* Hewitson and may be at once distinguished from that species and all the other *Celaenorrhinus* species of similar superficial appearance by the lower of the three subapical spots being prominently removed outward from the one above it instead of lying close to it.

### ***Carrhenes santes*, new species**

Figure 4

MALE.—Upper side dark rufous brown. Primaries with three small subapical spots, the

middle one the smaller and placed a little inward of the other two, a very thin, slightly oblique transverse spot in interspace 3, all the spots white hyaline. Outer margin narrowly dark brown, three very narrow dark brown bands, the first submarginal from the costal margin to vein 1, the second extra-discal enclosing the three subapical spots, then bending inward on vein 4 and diagonally crossing interspace 3 in a small hazy line, then downward to vein 1, the third is discal, beginning on the costal margin crossing the cell to vein 2, a narrow bar at the end of the cell and a hazy one in interspace 1 in the basal quarter. A long, well-developed costal fold. The fringes are slightly paler brown.

Secondaries. Outer margin narrowly darkened as on primaries, very narrow, wavy submarginal, extra-discal, discal and basal dark brown bands and a bar at the end of the cell. The entire costal margin above vein 8 is white. Fringes as on the primaries.

Under side lighter yellowish brown. Primaries with the area below the cell the palest; the hyaline spots repeated; the submarginal and extra-discal bands and the bar at the end of the cell repeated; the discal band represented by a hazy dark spot across the cell. Fringes darker than the wing.

Secondaries with the bands and cell end bar repeated; costal margin above vein 8 darker brown; the inner margin of the abdominal fold is narrowly edged with yellowish and at the anal angle there is a large black spot. Fringes darker than the wing.

Top of head and palpi blackish with some yellowish hairs; thorax and abdomen above same color as the wings. Beneath the palpi are yellow with some black hairs; pectus yellowish brown; thorax grayish; abdomen sordid whitish with a narrow, dark central stripe. The hind tibiae have a long, pale brownish hair tuft. Antennae above black, beneath brownish.

EXPANSE.—37 mm.

TYPE MATERIAL.—Holotype male, Rio Santiago.

*Santes* is a dark colored species and perhaps more nearly resembles *meridensis* Godman and Salvin than any of the others. From *meridensis* it may be readily distinguished on the upper side by the very dark color, the fewer hyaline spots of the primaries and the white costal area of the secondaries; on the under side by the large black spot at the anal angle and the lack of the bluish area of the secondaries.

The form of the male genitalia differs from that of any of the *Carrhenes* species examined. Unfortunately some parts were so disintegrated that only the clasper is figured. The claspers are symmetrical.

***Pholisora cupreiceps* Mabille**

*Antigonus cupreiceps* MABILLE, 1891, Ann. Soc. Ent. Belg., XXXV, C. R. p. lxiii. Honduras.

*Staphylus cupreiceps* GODMAN AND SALVIN, 1896, Biol. Centrali-Americana, Rhopal., II, p. 430, Pl. 89, figs. 4, 5, 6.

*Pholisora cupreiceps* LINDSEY, 1925, Denison University Bulletin, Journ. Scientific Laboratories, XXI, p. 85.

In the original description by Mabille there is no mention of hyaline subapical spots on the primaries of his type from Honduras. In the *Biologia Centrali-Americana* Godman and Salvin make no mention of such spots and the geographical distribution of this species, in addition to the type locality, is given as: Mexico, Guatemala, Panama, Venezuela, Amazon Valley, Bolivia, eastern Brazil. Lindsey records a single male specimen from Puerto Bermudez, Rio Pichis, Peru, having three small hyaline subapical spots and mentions another specimen in his collection from Colombia having two such spots, very small.

Among the Bassler material are three male specimens: one from Middle Rio Marañon has three small hyaline spots; another from Iquitos, has the three hyaline spots a little larger than the first-mentioned specimen and below them in interspace 5 has another minute opaque spot which does not show on the under side of the wings as do the hyaline spots; the third specimen from Middle Rio Marañon in addition to the three hyaline spots has small opaque spots in interspaces 5, 4, 3, forming with the hyaline spots an arc around the end of the cell, the three opaque spots not showing on the under side of the wings. The genitalia of two of these specimens are of essentially the same form as that of Central American specimens, although the projecting lower corner of the claspers is not so rounded but more squarish and this slight difference is not believed in this case to represent specific difference.

In the series of the American Museum collection, from Central American localities, there is a single male from Jalapa, Mexico, having three hyaline subapical spots. Thus it would seem that in the northern

part of the range of the species the preponderance of individuals are of the typical form, lacking these spots, and only occasional individuals have them, whereas in Peru the preponderance of individuals have the spots and here they assume the status of a racial character.

***Pholisora morona*, new species****Figure 2**

MALE.—Upper side dark brown. Primaries with three white hyaline subapical spots, the upper and lower of about equal size, the middle one very small. A narrow, paler submarginal band from the costal margin, a little before the apex almost to the inner margin. The cell and below it to the inner margin blackish brown. Basal area and outer marginal quarter lightly overscaled with sordid yellowish. Fringes concolorous. No costal fold.

Secondaries with a paler submarginal band similar to that of the primaries and some small, hazy paler spots in the basal half, which include a bar at the end of the cell. A light overscaling of sordid yellowish. Fringes concolorous.

Beneath the primaries are a little paler than above, still paler along the inner margin. A narrow submarginal dark line. Subapical spots as above.

Secondaries a little paler than above and with the same markings somewhat plainer. Base and abdominal half of the wings overscaled with yellowish.

Upper side of the body, including head and palpi, brown with yellowish scales. Beneath the thorax, abdomen and pectus brown with yellow scales. Palpi sordid yellow with some black scales. Antennae blackish above and beneath, the apiculus a little paler beneath.

EXPANSE.—19 mm.

TYPE MATERIAL.—Holotype male, Rio Morona, Peru.

Superficially *morona* resembles *Pholisora atahuallpai* Lindsey, also from Peru, and like that species has no costal fold on the primaries. *Morona* differs in having three subapical spots on the primaries, the middle one very small, in *atahuallpai* there are two subapical spots, corresponding in position to the upper two of *morona*, and these two spots while small are of about equal size.

The form of the male genitalia differs somewhat from that usually found in *Pholisora* in that there is a short projection from either side of the uncus at the base. The claspers are similar in form to that found in other *Pholisora* species.

The aedoeagus carries a large number of internal spines, which were squeezed out in the preparation of the slide.

**Metiscus horridus**, new species

Figure 7

MALE.—Upper side of both wings dark rusty brown. Fringes of primaries concolorous, of secondaries a little paler. Stigma of primaries is a long stripe in interspace 2 along the median vein, filling the angle at the rise of vein 2, a short horizontal stripe below vein 2 extending from about the center of the base of the upper stripe to a little beyond its outer corner.

Beneath, primaries same color as above, the inner margin narrowly a little paler; a small, hazy, slightly paler spot in interspace 1 a little beyond the center and a still hazier one obliquely above it in interspace 2.

Secondaries with abdominal fold and just beyond it brown, the rest of the wing brown with a purplish tint.

Head brownish, slightly paler than the wings, body concolorous. Palpi beneath, pectus and body brown. Antennae brown on both sides, the base of the club and apiculus beneath paler.

EXPANSE.—45 mm.

TYPE MATERIAL.—Holotype male, Iquitos.

Much larger than *atheas* Godman, the secondaries a little more elongate and the stigma of the primaries more developed at the base.

**Methionopsis purus**, new species

Figure 6

MALE.—Upper side, both wings and the fringes blackish brown.

Under side, both wings dark brown with a

purplish tinge, the inner margin of the primaries paler.

Head, palpi and body above and beneath dark brown, the palpi with a few yellowish hairs. Antennae blackish on both sides, the base of the club beneath a little paler.

EXPANSE.—23 mm.

TYPE MATERIAL.—Holotype male, Rio Santiago.

*Purus* is of the same size and appearance of *typhon* Godman but there is no visible stigma on the primaries as in that species.

The form of the male genitalia is similar to that of both *typhon* and *modestus* Godman but differs slightly in detail.

**Eutocus minimus**, new species

Figure 5

MALE.—Upper side, both wings blackish brown, fringes slightly paler at the tips. The usual stigma very inconspicuous.

Beneath, both wings slightly paler than above, inner margin of the primaries paler. Secondaries with three very minute, ill-defined bluish white spots in a curved discal band.

Head and body above same color as the wings. Beneath the palpi are brown with yellow hairs, the thorax and abdomen brown. Antennae blackish on both sides.

EXPANSE.—20 mm.

TYPE MATERIAL.—Holotype male, Middle Rio Ucayali.

This species is much smaller than the similar *Eutocus phthia* Godman and has bluish white spots on the under side of the secondaries, which when present in *phthia* are yellowish.

